

Joshua S. Salafsky and Kenneth B. Eisenthal  
Serial No.: 09/731,366  
Filed: December 6, 2000  
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REMARKS

Claims 1-37 were pending in the subject application. Claims 29-32 have been withdrawn from consideration by the Examiner as allegedly drawn to non-elected subject matter. By this amendment, applicants have canceled claims 29-32 without prejudice or disclaimer, amended claims 1, 21, 34, 36 and 37, and added new claim 38. Accordingly, upon entry of this amendment, claims 1-28 and 33-38 are pending and under examination.

Support for the amendment to claims 1, 21 and 34 may be found, *inter alia*, on page 3, lines 3-5 of the subject application.

Claims 36 and 37 have been amended to improve clarity.

Support for new claim 38 may be found, *inter alia*, on page 8, lines 15-16, page 10, line 2 and page 22, lines 4-10 of the subject application.

Pursuant to 37 C.F.R. § 1.116, these amendments serve to place the subject application in condition for allowance by complying with requirements set forth in the prior Office Action as described below. Accordingly, applicants respectfully request that this Amendment be entered.

Rejection Under 35 U.S.C. § 112, second paragraph

On page 2 of the April 7, 2003 Office Action, the Examiner rejected claims 1-28 under 35 U.S.C. § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter which applicants regard as their invention. Specifically, the Examiner alleged that claim 1 is vague and indefinite for reciting that a second harmonic-active label is attached to the molecule and then allegedly further reciting the absence of the second harmonic-active label. The Examiner also referred applicant to claims 21 and 34. Then, for claim 36 the Examiner alleged that "the molecule" is vague and indefinite for

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not clearly referring to the second molecule or the second harmonic-active labeled molecule.

In response, applicants have amended the claims to more clearly define their invention. As amended, applicants' claims satisfy the requirements of 35 U.S.C. § 112, second paragraph.

Moreover, as discussed more fully below, by virtue of clearly defining applicants' invention, the claims clearly distinguish over the cited prior art. In the paragraph bridging pages 10 and 11, the Examiner in response to applicants' arguments, took the position that it was unclear from the claims prior to this amendment whether the second harmonic-active label was there or not, and found the alleged ambiguity to read on Quinn et al. (European Patent Application No. 0 740 156). Applicants respectfully submit that no such ambiguity exists in the amended claims. Therefore, the amended claims clearly distinguish over the prior art.

**Rejections Under 35 U.S.C. §§ 102(b) and 103**

On pages 2-10 of the April 7, 2003 Office Action, the Examiner reiterated the rejection of claims 1-4, 7, 8, 12, 13, 21, 23, 27 and 28 (to which group claims 33-37 were added) under 35 U.S.C. § 102(b) as allegedly anticipated by Quinn et al. (European Patent Application No. 0 740 156). The Examiner also reiterated multiple rejections under 35 U.S.C. § 103 in all of which the primary reference was Quinn et al. Specific rejection under 35 U.S.C. § 103 were of claims 5, 24, and 25 over Quinn et al. and Mattingly et al.; claims 6, 11 and 22 over Quinn et al. and Marshall et al.; claim 9 over Quinn et al. and Buechler et al.; claim 10 over Quinn et al. and Wang et al.; claims 14 and 16 over Quinn et al. and Eisenthal et al.; claim 15 over Quinn et al. and Conboy et al.; claims 17-20 over Quinn et al. and U.S. Patent No. 6,055,051; and claim 26 over Quinn et al. and U.S. Patent No. 5,962,248.

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In the paragraph bridging pages 10 and 11, the Examiner in response to applicants' prior arguments, took the position that it was ambiguous from the claims prior to this amendment whether the second harmonic-active label was there or not, and asserted that the alleged ambiguity makes the claims read on Quinn et al. (European Patent Application No. 0 740 156).

In response, applicants respectfully submit that no such ambiguity exists in the amended claims. Applicant's amended claims clearly recite that in its method, an unlabeled molecule at the interface is undetectable using the surface selective technique. Quinn et al., on the other hand, use a reporter molecule to resonantly enhance a signal that is already present. Quinn et al. state that the "[s]econd-order optical processes originate from the field and structural discontinuity at the interface" [Quinn et al., column 2, lines 31-33], and a reporter molecule is used to resonantly enhance the surface nonlinear susceptibility [Quinn et al., column 2, lines 46 to 57]. As clarified in the amended claims, applicant's invention uses a second harmonic-active label to produce a signal that is not present in the absence of the label.

Therefore, Quinn et al. does not anticipate applicants' invention as recited in the amended claims. Furthermore, Quinn et al., alone or in combination with the disclosures of the secondary references, does not teach or suggest applicants' invention as recited in the amended claims because the deficiencies of Quinn et al. are not remedied by the secondary references.

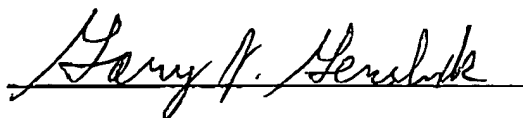
Accordingly, applicants respectfully request that the Examiner reconsider and withdraw the rejections under 35 U.S.C. §§ 102 and 103 set forth in the April 7, 2003 Office Action.

No fee is deemed necessary in connection with the filing of this Amendment. However, if an additional fee is required,

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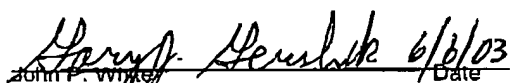
authorization is hereby given to charge the amount of any such  
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Respectfully submitted,



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